



Introduction



Laboratories for the 21st Century
Water Resource Management in Laboratory Facilities
September 6, 2000

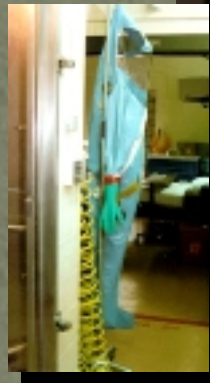


Overland Firm Profile



Current staff of 47 people
including 7 principals.
Offices in Bozeman and San
Antonio.





Southwest Foundation for Biomedical Research

San Antonio, Texas

Client: SFBR
Size: 34,000 sf
Cost: \$9 million



National Wildflower Research Center

Austin, Texas

<i>Client:</i>	NWRC
<i>Size:</i>	54,000 sf
<i>Cost:</i>	\$10,000,000



National Wildflower Research Center

Austin, Texas

Client: NWRC
Size: 54,000 sf
Cost: \$10,000,000



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Austin, Texas

<i>Client:</i>	NWRC
<i>Size:</i>	54,000 sf
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National Wildflower Research Center

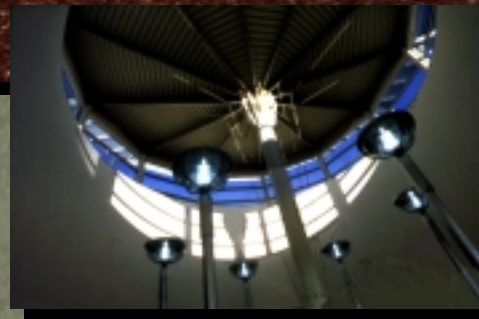
Austin, Texas

<i>Client:</i>	NWRC
<i>Size:</i>	54,000 sf
<i>Cost:</i>	\$10,000,000



NWRC Water Info

- Rainwater harvesting from sloped metal roofs
 - Primary use is for landscape irrigation
 - Cisterns have 70,000 gallons of storage capacity
 - Approximately 5 acres of drip-irrigated area
 - Supplemented by potable water supply
 - Harvest approximately 400,000 gallons of rainwater
 - Large educational value
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South Texas Blood and Tissue Center

San Antonio, Texas

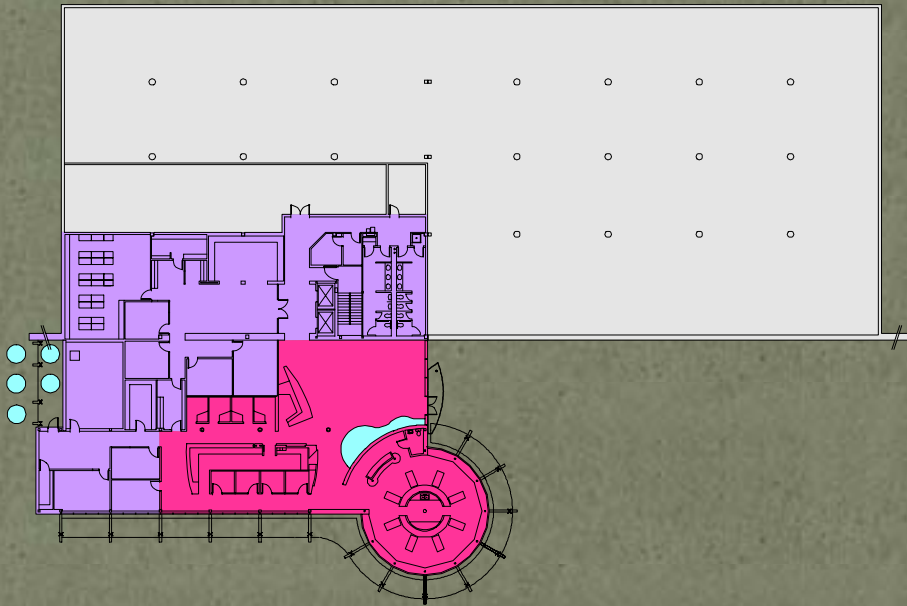
Client: STBTC
Size: 79,000 sf
Cost: \$8,000,000



South Texas Blood and Tissue Center

San Antonio, Texas

<i>Client:</i>	STBTC
<i>Size:</i>	79,000 sf
<i>Cost:</i>	\$8,000,000



South Texas Blood and Tissue Center

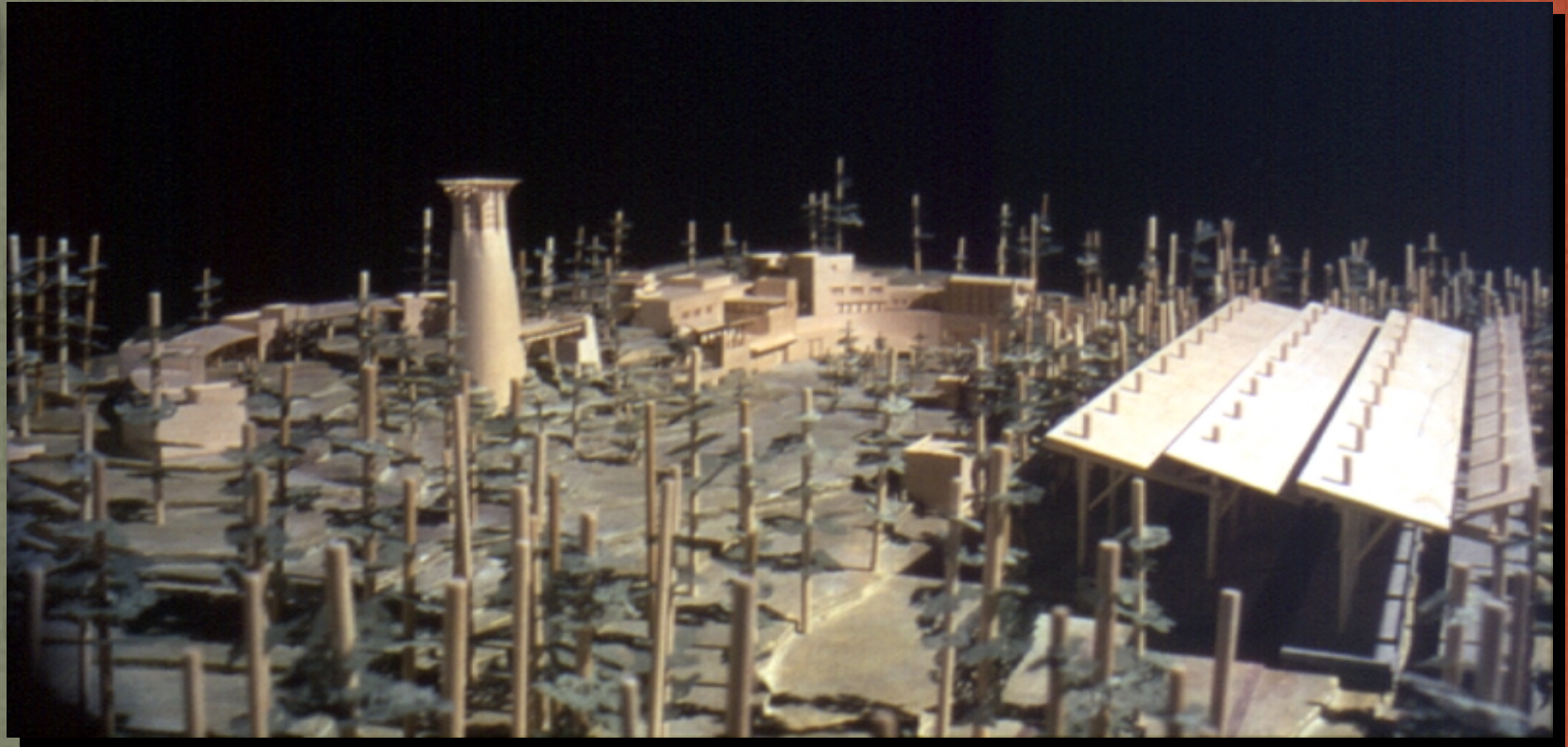
San Antonio, Texas

<i>Client:</i>	STBTC
<i>Size:</i>	79,000 sf
<i>Cost:</i>	\$8,000,000



STBTC Water Info

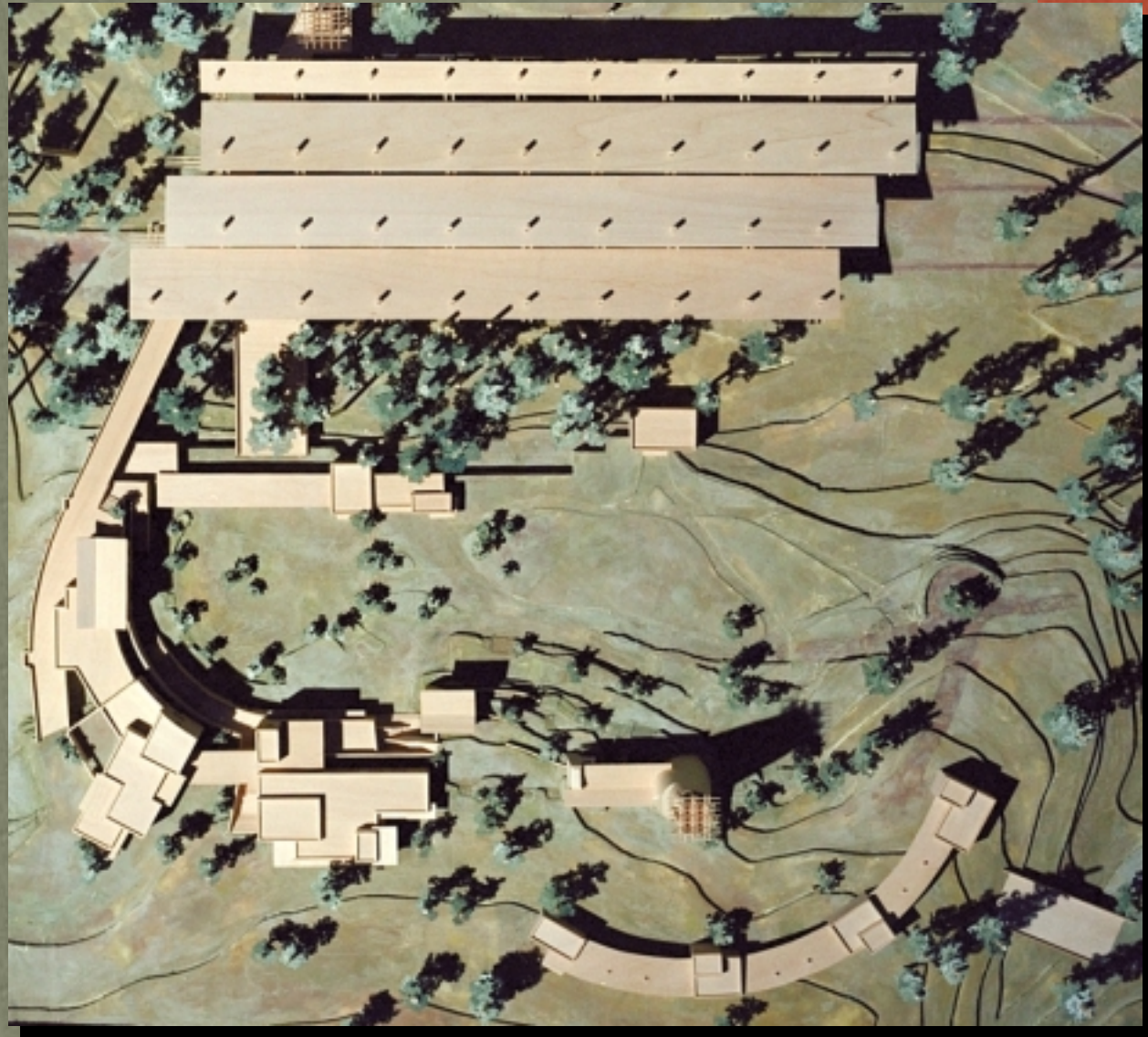
- Rainwater harvesting from built-up roofs
 - Recycled HVAC blowdown water
 - Primary use is for landscape irrigation
 - Cisterns have 5200 gallons of storage capacity
 - Supplemented by potable water supply
 - Harvest approximately 100,000 gallons of rainwater
 - Recycle about 400,000 gallons of blowdown water
 - Initial cost of about \$5,000
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Grand Canyon Transit Center

Tusayan, Arizona

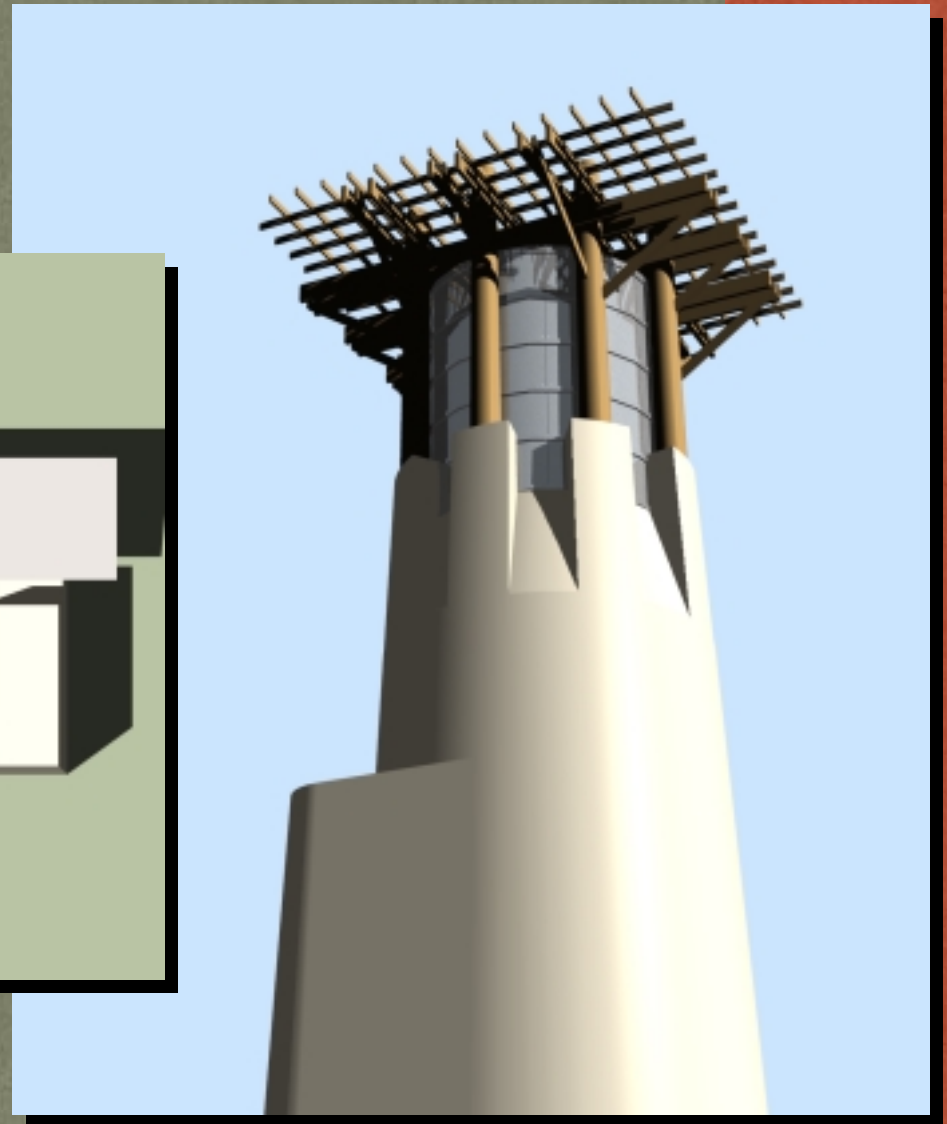
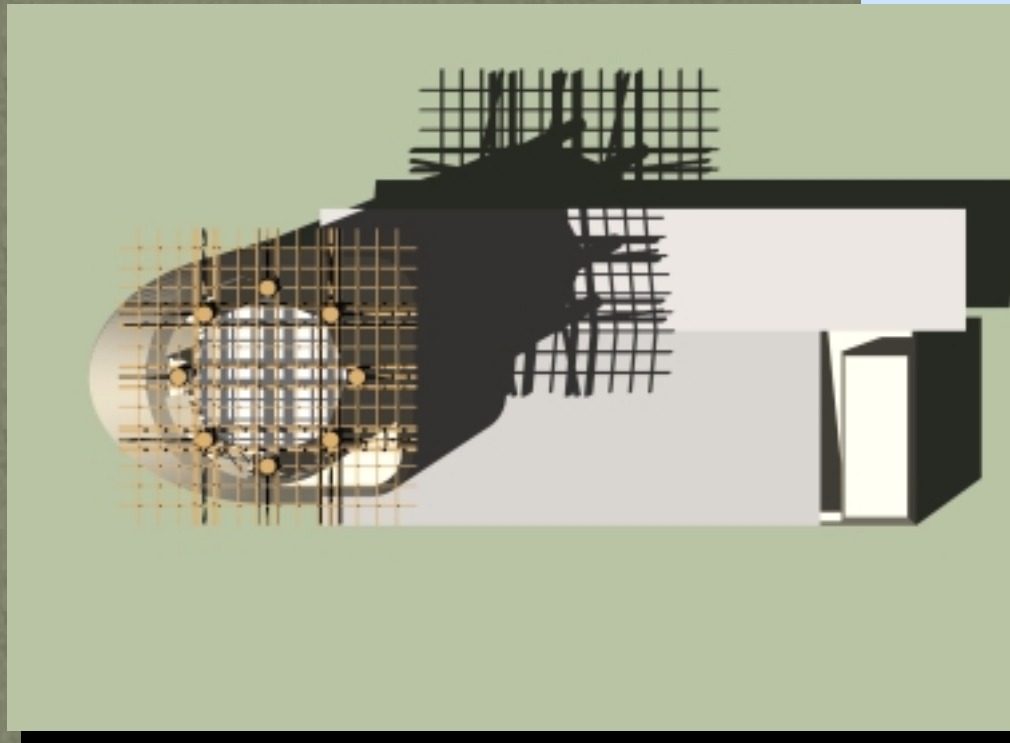
Client: National
Park Service
Size: 100,000 sf
Cost: Withheld



Grand Canyon Transit Center

Tusayan, Arizona

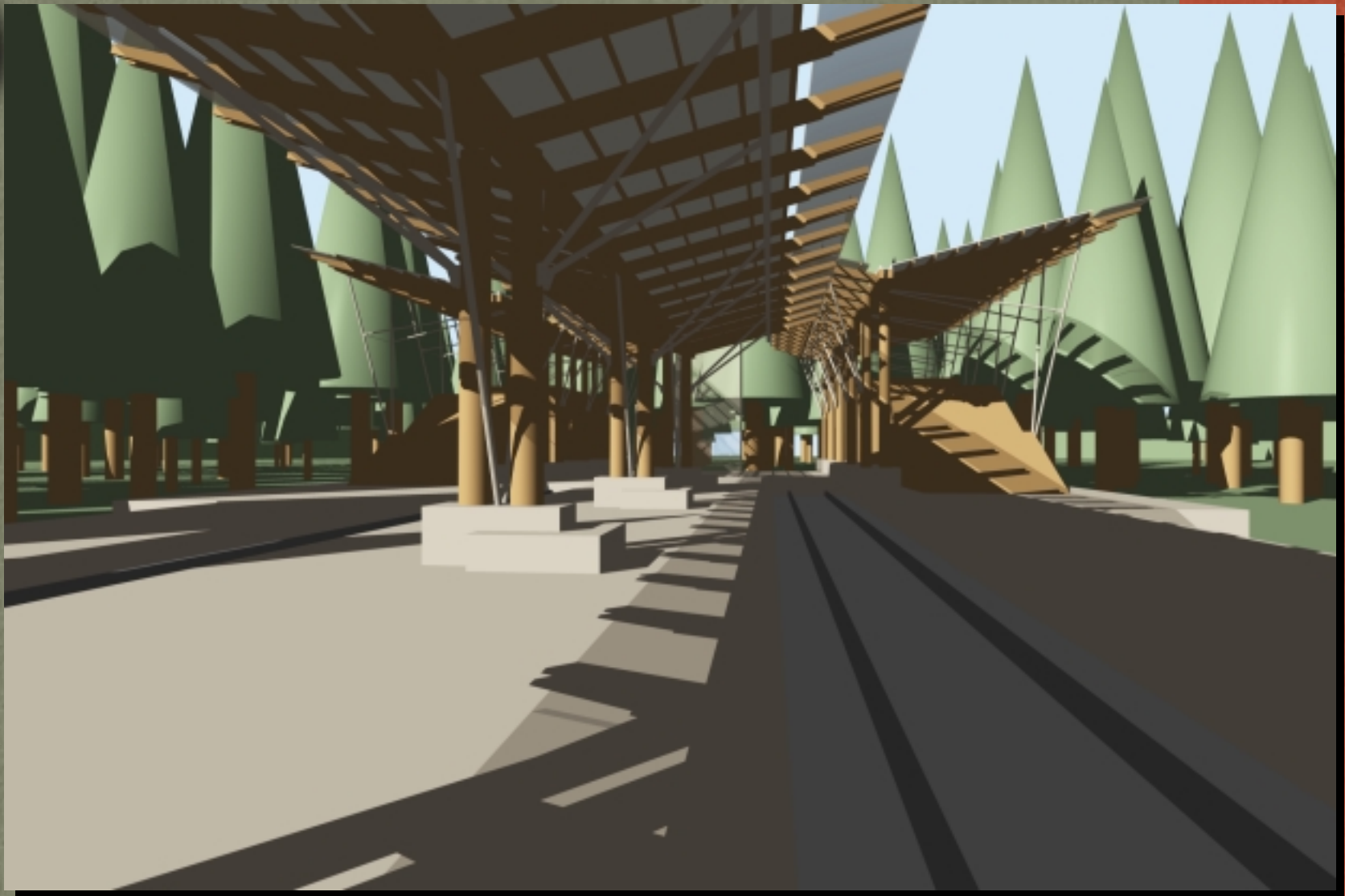
<i>Client:</i>	National Park Service
<i>Size:</i>	100,000 sf
<i>Cost:</i>	Withheld



Grand Canyon Transit Center

Tusayan, Arizona

<i>Client:</i>	National Park Service
<i>Size:</i>	100,000 sf
<i>Cost:</i>	Withheld



Grand Canyon Transit Center

Tusayan, Arizona

<i>Client:</i>	National Park Service
<i>Size:</i>	100,000 sf
<i>Cost:</i>	Withheld



Grand Canyon Transit Center

Tusayan, Arizona

Client: National
Park Service
Size: 100,000 sf
Cost: Withheld



GCTC Water Info

- 173,000 gallons of rainwater/snowmelt collected from metal roofs and used for evaporative cooling, radiant heating, landscape irrigation and janitorial cleaning.
 - 4.8 million gallons of recycled water from Tusayan Reclamation Facility for all toilet usage.
 - 750,000 gallons of recycled water from sinks and drinking fountains used for landscape irrigation.
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GCTC Water Info

- 101,000 gallons of rainwater/snowmelt harvested from plazas and used for landscape irrigation.
 - 2.6 million gallons of rainwater/snowmelt harvested from parking lots and used for landscape irrigation.
 - Annual water costs projected to be \$64,000 as compared to \$185,000 if all potable water was used resulting in a savings of \$121,000 per year.
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